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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,010

12/15/2005

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EXAMINER

GILLESPIE, BENJAMIN

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

02/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/595,010	Applicant(s) STANJEK ET AL.	
	Examiner BENJAMIN J. GILLESPIE	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

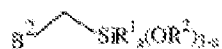
- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 25, 28, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The language “substantially” render claims 25 and 28 indefinite because it is a relative term. Furthermore, claim 31 is rejected because it lists a water scavenger having the formula:



where

B^2 is a group $\text{R}^4\text{O-CO-NH}$, $\text{R}^4\text{R}^3\text{N-CO-NH}$, OH , OR^4 , SH , SR^4 , NH_2 , NHR^4 , or $\text{N(R}^4)_2$.

However the variable R^4 , has never been defined; clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 12-22, 24-28, 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Muller et al ('290). Muller et al disclose a room-temperature moisture curable composition that is the reaction product of diisocyanate, polyol, and alkoxydimethylmonoamines, wherein the final

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composition contains no free NCO groups (Col 1 lines 21-23; col 5 lines 40-42). In particular, patentees teach the diisocyanate consists of isophorone diisocyanate (IPDI), the polyol is a mixture of high molecular weight polyether polyol and low molecular weight dihydric alcohols, such as butanediol, ethylene glycol, propylene glycol, and propanediol, and the alkoxysilylmonoamines share the same structure as the compounds in claims 12, 14, 18, and 26 (Col 2 lines 41-64; col 3 lines 9-27, 54-63).

3. Regarding the claimed amounts of high and low molecular weight polyol, Muller et al explain that per 1 part of polyether polyol, 0-0.6 parts by weight of dihydric alcohol can exist depending on the desired properties of the final composition. Therefore based on this disclosure and the breadth of applicants' claimed range as well as the possible molecular weights for said polyether, the claimed molar range is satisfied (Col 2 lines 65-68; col 3 lines 1-4). Finally, patentees disclose that the composition may optionally contain additives such as silica (Col 4 lines 30-37; col 5 lines 54-55).

4. Claims 12-32 are rejected under 35 U.S.C. 102(b) as being anticipated by (WO 00/35981) translation provided by Majolo et al ('903). Majolo et al teach a room-temperature moisture curable composition that is the reaction product of diisocyanate, high and low molecular weight polyol, and alkoxysilanes, wherein the final composition contains no free NCO groups (Col 1 lines 26-28; col 2 lines 64-67; col 3 lines 1-10, 24-26; col 18 line 13). In particular, patentees teach the diisocyanate consists of isophorone diisocyanate (IPDI) diphenylmethane diisocyanate (MDI) and toluene diisocyanate (TDI), the high molecular weight polyol is based on polyether, polyester, and/or polycarbonate, the low molecular weight polyol consists of butanediol, ethylene glycol, propylene glycol, and propanediol, and finally the alkoxysilanes share the same structure

as the compounds in claims 12, 14, 18, 23, and 26 (Col 3 lines 1-32, 42-47, 59-67; col 4 lines 59-62; col 6 lines 25-30).

5. Regarding the claimed molar ratio of claims 12 and 27, patentees explain that up to 20% by weight of low molecular weight polyol can be present and therefore based on the breadth of applicants' claimed range as well as the possible molecular weights for said high molecular weight polyol, the claimed molar range is satisfied (Col 2 lines 65-68; col 3 lines 1-4). Finally, patentees disclose that the composition may optionally contain solvent and additives such as silica (Col 7 lines 18-20; col 16 lines 28-34).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al ('290) in view of (WO 00/35981) translation provided by Majolo et al ('903).

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Aforementioned, Muller et al teach a room-temperature moisture curable composition that is the reaction product of diisocyanate, polyol, and alkoxysilanes, however Muller et al only disclose amine functional silanes and fails to teach compounds corresponding to claim 23. Majolo et al also teach room temperature moisture curable compositions comprising the reaction product of diisocyanate, polyol, and alkoxysilanes, and in particular patentees explain that the isocyanate reactive alkoxysilanes can not only consist of amine based compounds but also hydroxyl functional compounds.

8. Therefore it would have been obvious to one of ordinary skill in the art to substitute the isocyanate-reactive silane compound of Muller et al for the hydroxyl-functional silane of Majolo et al based on the motivation that the mere substitution of an equivalent (something of equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable, i.e. it would have been obvious. *In re Ruff* 118 USPQ 343 (CCPA 1958).

Response to Arguments

Applicant's arguments filed 11/29/2007 with respect to the rejection of claims 25 and 28 under 35 U.S.C. 112 2nd paragraph have been fully considered but they are not persuasive. Applicants argue that the language "substantially free" would be understood by one of ordinary skill in the art since it is impossible to remove all traces of water in the composition, and as a result the desired effect can only be obtained through a composition "substantially free" of water. The examiner would like to point out however that the language "substantially free still renders the claims indefinite because no concentration has been defined as to what would definitely satisfy a "substantial" amount. For example, the language of claim 12 is only limited to "a room

temperature-curing composition which is not solid in the uncrosslinked state." The language "not solid," clearly does not preclude a gel state, which can be obtained through premature reaction with a finite amount of water; i.e. the "not solid" composition has not proceeded to the final cross-linked state.

Applicant's arguments filed 11/29/2007 with respect to the rejection of claims 11-32 under 35 U.S.C. 102(b) and 103(a) as being anticipated by Muller et al have been fully considered but they are not persuasive. Applicants argue that the Muller et al is not relevant prior art because patentees fail to teach the claimed A1:A2 ratio, and the alkoxysilane does not correspond to the claimed compound. Firstly the examiner would like to point out that applicants have misinterpreted the teaching of Muller et al on column 2 lines 65-68 and column 3 lines 1-4. It is noted that patentees teach per 1 part of polyol, there is up to 0.6 parts of diol, however these parts are clearly designated as parts by weight. With this, and the fact that the polyol has a molecular weight range that extends up to 6,000, as well as the diol consists of compounds such as ethylene glycol, patentees clearly anticipate the **molar ratio** of claims 12, 27, 31, and 32.

9. Furthermore, regarding applicants remarks concerning the alkoxysilane compound, while it is note that the examples only teach propyl based silane compounds, however the examiner would like to remind applicants that a reference is not limited to just what the examples teach. Instead the entire disclosure of a reference should be taken into consider a reference, and column 2 lines 35-43 clearly teaches that the silane compound may consist of only a methyl linkage.

10. Similarly, the remarks on page 12, paragraph 2 of applicants' response stating that "Muller [et al] was obviously unaware of the surprising and unexpected reactivity of these

compounds... Muller [et al] never test such materials,” are not persuasive. Although Muller et al did not exemplify the effects of having methyl linkage does not constitute that patentees were not aware of the reactivity nor that it would not have been useful in the desired application; said silanes are clearly disclosed therefore patentees took them into consideration.

11. Applicant's arguments filed 11/29/2007 with respect to the rejection of claims 11-32 under 35 U.S.C. 102(b) as being anticipated by Majaolo et al have been fully considered but they are not persuasive. Applicants argue that Majaolo et al do not anticipate the claimed composition because patentees teach silanol terminated polyurethanes, the resulting polyurethane is dispersed in water and therefore not moisture-curable, and the amount of polyol to diol is not anticipated by the disclosure of Majaolo et al.

12. The examiner would like to point out that the Majaolo et al clearly teach a polymer which is the reaction product of polyisocyanate, polyol, and alkoxysilane, as well as diol, wherein each compound is the same as claimed by applicants (Col 2 lines 64-67; col 3 lines 1-5, 24-26).

What's more is that patentees explain the polyurethane is produced in the **absence** of water (Col 7 lines 18-30). Although the final composition of Majaolo et al may contain silanol groups, the examiner would like to point out that the present set of claims do not exclude the said groups.

13. Finally regarding applicants remarks concerning the claimed A1 to A2 ratio range, it is noted that Majaolo et al do not explicitly teach the same molar ratio end points, however based on the breadth of the claimed range and the disclosure of Majaolo et al., one would have immediately envisaged the claimed amounts.

14. Applicant's arguments filed 11/29/2007 with respect to the rejection of claims 23 and 29 under 35 U.S.C. 103(a) as being unpatentable over Muller et al in view of Majaolo et al have

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been fully considered but they are not persuasive. Applicants' argue that claims 23 and 29 are patentable over the prior art because the teachings of Majaolo et al and Muller et al are not relevant to each other, however the determination that a reference is from a nonanalogous art is twofold. First, it is decided if the reference is within the field of the inventor's endeavor. If it is not, then it must be determined whether the reference is reasonably pertinent to the particular problem with which the inventor was involved. *In re Wood*, 202 USPQ 171, 174; *In re Clay*, 23 USPQ.2d 1058. Muller et al and Majolo et al satisfy the test for relevant prior art based on the understanding that both are drawn to silane terminated polyurethanes produced by the reaction of polyether polyol, diol, diisocyanate and isocyanate-reactive silane compounds.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN J. GILLESPIE whose telephone number is (571)272-2472. The examiner can normally be reached on 8am-5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

B. Gillespie

/Rabon Sergent/
Primary Examiner, Art Unit 1796